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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,359	08/25/2003	John C. Ulicny	GP-302079	2220

7590

08/31/2004

KATHRYN A MARRA

General Motors Corporation, Legal Staff

Legal Staff, Mail Code 482-C23-B21

P.O. Box 300

Detroit, MI 48265-3000

EXAMINER

KOSLOW, CAROL M

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/647,359	Applicant(s) ULICNY ET AL.	
	Examiner C. Melissa Koslow	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/25/03</u> . | 6) <input type="checkbox"/> Other: ____. |

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The drawings are objected to because the individual lines in figure 5 cannot be distinguished from each other due to the size of the figure. It is suggested to replace it with a larger scale version of the figure. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claims 3, 4, 9, 10, 16, 17 and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no teaching in the specification that the claimed ferromagnetic particles can be low carbon steel, silicon steel or potato iron. There is no teaching of the composition of claim 4.

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Finally, there is no teaching of the claimed processes of claims 9, 10, 16 and 17. Applicants can insert the claimed subject matter into the specification or, if it is present, point out where it is located in the specification to overcome the rejection.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8, 11-15 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,804,095 in view of U.S. patents 3,904,448; 6,328,819 and 1,838,195.

U.S. patent 5,804,095 teaches a magnetorheological fluid formed by adding nitrided iron carbonyl particles having an average particle distribution of 3.845 microns to a magnetorheological fluid carrier. (column 10 and table 1). This patent does not teach how the particles were nitrided nor that the particles have an oxidation resistant surface. U.S. patents 3,904,448 and 6,328,819 teach the nitrided particles would have an improved oxidation resistance since the nitride coating forms an oxidation resistant surface to the nitride metal particles. U.S. patents 6,328,819 and 1,838,195 teach the standard process for nitriding to heat a metal article in an atmosphere mainly comprising ammonia at a temperature and at a time sufficient to form a nitride coating on the surface of the article. The suggested atmosphere reads upon that claimed. Therefore one of ordinary skill in the art would have found it obvious to use this process to form the nitrided carbonyl iron particles of U.S. patent 5,804,095. The references suggest the claimed processes.

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Claims 1-9, 11-15 and 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,027,664 in view of U.S. patents 5,804,095; 3,904,448; 6,328,819 and 1,838,195.

U.S. patent 6,027,664 teaches a bimodal magnetorheological fluid comprising a first portion of magnetic particles having a size of 1-10 microns and a second portion of magnetic particles having a size 3-15 times that of the first portion or 3-150 microns. These size ranges overlap the claimed ranges. There is no teaching that the magnetic particles can be nitrided.

U.S. patents 3,904,448 and 6,328,819 teach the nitrided particles would have an improved oxidation resistance since the nitride coating forms an oxidation resistant surface to the nitride metal particles and U.S. patent 5,804,095 shows that nitride particles can be used in magnetorheological fluids. Therefore one of ordinary skill in the art would have found it obvious to nitride the taught iron based metal magnetic particles, such as iron alloys, carbonyl iron, low carbon steel, silicon steel or iron, by the conventional method, as taught by U.S. patents 6,328,819 and 1,838,195, to form bimodal nitrided particles having improved oxidation resistance and then adding these particles to a magnetorheological carrier fluid.

Claims 10, 16 and 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

There is no suggestion in the art that only part of the magnetic particles should be nitrided. The art suggests all the particles should be nitrided to reduce the oxidation of the particles.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at (571) 272-1362.

The fax number for all official communications is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk
August 27, 2004



C. Melissa Koslow
Primary Examiner
Tech. Center 1700